

Hill Slough West Tidal Restoration Project

Gina Van Klompenburg, California Department of Fish and Game

Project Goal

Restore brackish tidal marsh and associated upland ecotone at the site to benefit endangered as well as other migratory and resident species.

Project Objectives

- · Create tidal brackish marsh habitat consisting of sinuous tidal channels and low, middle, and high marsh habitats establish vegetation similar to local tidal brackish marshes
- · Convert upland non-native grassland habitat to lowland alluvial habitat dominated by native perennial grass and native moist grassland species
- Restore self-sustaining habitats, minimizing the need for active operation and maintenance
- Provide for public access that is compatible with protection of resource values and regional and local public access policies

Existing Conditions





Design Approach

Construct a template on which natural processes can act, thereby allowing the site to evolve into a self-sustaining marsh ecosystem.

Opportunities

- Restore tides to the site by re-establishing the hydrologic connection with Suisun Slough.
- Tidal exchange will provide a source of tidal waters, sediments, nutrients, and colonizing plants and animals.
- Existing grades are within or above the intertidal zone. Approximately two-thirds of the site is at elevations appropriate for eventual marsh vegetation establishment. The remainder of the site is above the diurnal tidal zone and can provide moist grasslands transitional habitat creating an upland ecotone.
- Expand an existing large area of contiguous wetlands. The site is near large areas of tidal marsh and managed seasonal wetlands.
- · Re-create sinuous tidal channel habitat by excavating the main channels or allowing them to form through natural tidal scour.
- · Convert existing levee uplands to tidal marsh by lowering portions of the levees.
- The existing pathways along the levees reflect an established public use pattern that can be compatible with restored marsh resources.

Next Steps

- The Project is currently in the environmental documentation and permitting phase
- Construction level design
- Construction
- Post-project Monitoring

Restoration Plan



Design Elements

Breaches – Two breaches will be created to open the site to tidal action and reconnect remnant channels.

Starter Channels - Channels will be excavated to create tidal channel habitat and ensure full flushing of the site.

<u>Levees</u> – Certain segments of levee will be lowered to provide high marsh habitat and generate onsite fill for those levees needing improvement. Other levees will be constructed or improved to provide flood protection for the surrounding area.

Public Access - A small parking lot, spur trails, and two overlooks will be created. Public use has been designed to facilitate current use and provide educational opportunities while minimizing impacts to the resource.

Expected Results













